

Work Order ID 59169

Thursday, May 27, 2010 12:35:34 PM

Page 1

Item ID: D350-748-101

Accept

Setup Start

Revision ID:

Stop

Item Name: Crosstube Installation, High Fwd

Start Date: 5/27/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 6/11/2010 Req'd Qty: 1.00

Customer:

Reference:

Run Start

Approvals: Process Plan: 14 Date: 10-5-27 Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D350-748-141

Rev E

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPPD350-748-101

CHG001

5/10/07/13

110

0.00



BENDING MACHINE - CROSSTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Bend tube as per Dwg D350-748-141 using CNC bender program D350F and Folio FT _____

10-5-31

120

QC15- Crosstube Dimensional Check

0.00



QC

Memo

0.00

Quality Control

CP 10-06-07

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursTool ID Tool # Plan
CodeAccept Reject Reject Insp.
Qty Qty Number Stamp

130

0.00



Crosstubes

Crosstubes

Memo

0.00

1-Drill Tube as per Dwg D350-748-141 Using DT8876 A,B & C Drill Jigs.
Set-up drill table as per QSI 010MB
10-06-02

2-Deburr

AW M 10-06-04

3-Engrave Part # and Batch # as per Dwg D350-748-141

4-Remove all marks from tube within limits of D350-748-141

5- Apply a light coat of LPS3 on the interior of tube

Batch: W109956

CZ 10/6/4

140

0.00



QC

QC5- Inspect part completeness to step on W/O

Memo

0.00

CHECK 10 DEG HOLES WITH DT8876E (EUROCOPTER CLAMP)

Quality Control

1

1006.04

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 Outsource3 Outsource process - Cad plate	 Outsource process-Cadplate per QSI017 4.1.9.1 Memo Issue P/O: <u>12026</u> Stress relief at 375° for 5 hours Magnetic Particle Inspect per ASTM E1444 Cadium Plate per AMS-QQ-P-416B, Class 1, Type 2 Embrittle relief at 375° for 8 hours, Chromate Treat Possibe Supplier: Southwest United Industries Ensure Certificate of Conformity is attached	0.00 0.00							<u>C2</u> <u>10/6/4</u> <u>(1)</u>
160 Packaging Packaging	 Receive & Inspect for Damage & Mat'l Certs Memo Ensure certificate of conformity is attached	0.00 0.00							<u>P</u> <u>10/6/30</u> <u>(1)</u>
170 QC Quality Control	 QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							<u>ml</u> <u>10</u> <u>07</u> <u>05</u> <u>(1)</u>

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Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180		0.00							
	SprayPaint					ml	10	07	05 ①
SprayPaint	Memo	0.00							
Spray Painting	1-Prime inside crosstube as per QSI 005 4.2 2-Prime Outside of Tube as per Dart QSI 005 4.2								
190		0.00							
	QC14- Inspect Spray Paint					RT		10-07-08	
QC	Memo	0.00							
Quality Control	Then, Wrap in plastic bag to protect from scratches								
200		0.00							
	Crosstubes					ml	10	07	12 ①
Crosstubes	Memo	0.00							
Crosstubes	1-Install Ground wire Insert, then insert screw and washer 2-Install Abraison strips as per Dwg D350-748-141 & QSI 035. 3-Install supports Using Dt8876 as per Dwg D350-748-141, Torque to 60-80 IN-LBS								

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Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Setup

Start

Stop

Run

Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

QC5- Inspect part completeness to step on W/O

0.00

8/10/07/12

0.00

QC

Memo

Quality Control

Ⓢ

220

Pick Kit

0.00

0.00

Packaging

Memo

Packaging

10.7/12

SP

230

QC4- 100% Inspect kits for completeness

0.00

8/10/07/13

0.00

QC

Memo

Quality Control

Ⓢ

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Customer:



Reference:

Run Start

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240		0.00							
	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D350-748-101								
	Location: <u>102</u>								
	PPP Rev: <u>B</u>								
250		0.00							
	QC21- Final Inspection - Work Order Release								
QC	Memo	0.00							
Quality Control									

10-7-13

MF
10-7-13

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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Parent Item: D350-748-101

Parent Item Name: Crosstube Installation, High Fwd

Comments: IPP Rev:A New Issue 06-07-05 JLM
 IPP Rev:B Update qty of MS21042L5 06-09-12 KJ
 IPP Rev:C Rev B 07-11-15 DD
 IPP Rev D Combined manufacturing 08.04.02 EC verified by: DD

Start Date: 5/27/2010

Required Date: 6/11/2010

Start Qty: 1.00

Required Qty: 1.00

D350-748-141TRN Manufactured No

110 Each 0.0000

1 1



Crosstube Turning Detail

ALS4-1032-225 Purchased No

200 Each 7,062.000

1 1



Insert

Location

Loc Qty

Loc Code

PK011

7062

110768

7062

AN960JD10 NAS1149D0363J Purchased No

200 Each 0.0000

1 1



Washer

D2856-400 Manufactured No

200 f 269.1088 1.181 1.243158



Abraison Strip

Location

Loc Qty

Loc Code

ST403

269.1088

50593

62.0568

56626

207.052

D3500-1 Manufactured No

200 Each 36.0000

1 4



Saddle

Location

Loc Qty

Loc Code

ST425

36

47119

1

52326

9

55605

26

B-55-297 MB-10-05-31

ml 10.07.12

M115107 10.7.12

ml 10.07.12

10.7.12 SP

Pb →

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
10/09/12	#100	Per. Jan. Fix sequence #. should be for 220	AK	10.07.13		11004-13	S 10/07/12	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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IPP Rev:A New Issue 06-07-05 JLM
 IPP Rev:B Update qty of MS21042L5 06-09-12 KJ
 IPP Rev:C Rev B 07-11-15 DD
 IPP Rev D Combined manufacturing 08.04.02 EC verified by: DD

Start Date: 5/27/2010

Start Qty: 1.00

Required Date: 6/11/2010

Required Qty: 1.00

D3502-1

Manufactured No

200 Each

67.0000

2 2



Support

Location

Loc Qty

Loc Code

ST066

67

47120

1

50287

38

52903

28

MS21920-20

Purchased No

200 Each

111.0000

2 2



Clamp (per MIL-DTL-8783C)

Location

Loc Qty

Loc Code

LG

111

112307

2

112624

32

112793

3

114687

50

114779

24

MS27039-1-10

Purchased No

200 Each

150.0000

1 1



Screw

Location

Loc Qty

Loc Code

ST291

150

112794

50

112940

100

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10-07-12

10-07-12

10-07-12

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IPP Rev:C Rev B 07-11-15 DD
IPP Rev D Combined manufacturing 08.04.02 EC verified by: DD

Start Date: 5/27/2010

Required Date: 6/11/2010

Start Qty: 1.00

Required Qty: 1.00

AN4-41A



Bolt

Purchased No 220 Each 134.0000

Location	Loc Qty	Loc Code
ST360	134	
110731	2	
111424	26	
112082	6	
113359	100	

18
10-7-125

AN4-6A



Bolt

Purchased No 220 Each 926.0000

Location	Loc Qty	Loc Code
ST356	926	
112933	96	
113149	600	
114523	30	
114615	200	

26
16
10-7-125

AN5-32A



Bolt

Purchased No 220 Each 186.0000

Location	Loc Qty	Loc Code
ST340	186	
113121	36	
114056	100	
114405	50	

4
10-7-125

AN960JD416



Washer

NAS1149D0463J Purchased No

220 Each 0.0000

32
1115000 10-7-125

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Page 3

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IPP Rev:C Rev B 07-11-15 DD
IPP Rev D Combined manufacturing 08.04.02 EC verified by: DD

Start Qty: 1.00

Required Qty: 1.00

AN960JD516 NAS1149D0563J Purchased No

220 Each 0.0000



Washer

D3501-1 Manufactured No

220 Each 479.0000



Bushing

Location	Loc Qty	Loc Code
ST066	479	
45402	16	
45918	159	
48268	204	
53779	100	

MS21042L4 Purchased No

220 Each 2,605.000



Nut

Location	Loc Qty	Loc Code
ST139	2	
111827	2	
ST300	2603	
113422	80	
114523	1515	
114718	1000	
9063	8	

8 1 8
M113706 10-7-128

16 1 16
10-7-128

7
9

24 1 24
10-7-128

24

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Start Date: 5/27/2010

Required Date: 6/11/2010

Start Qty: 1.00

Required Qty: 1.00

MS21042L5

Purchased

No

220

Each

515.0000

Nut

Location

Loc Qty

Loc Code

ST300

515

113523

12

113537

3

114437

100

114449

400

M114813 10-7-10

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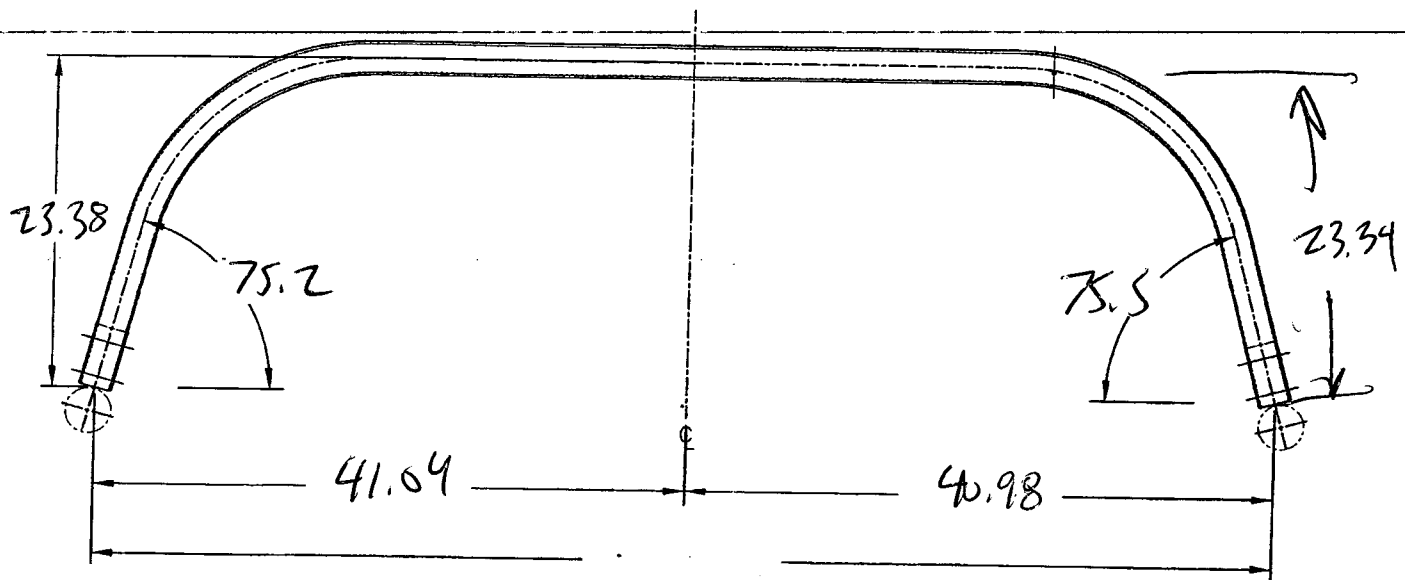
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DART AEROSPACE LTD		Work Order:	59169
Description: Crosstube High Fwd (AS350/355)		Part Number:	D350-748-101
Inspection Dwg: D350-748-141	Rev: D	Page 1 of 1	

Required Dimension	Min	Max
Height	23.13	23.37
1/2 Span	40.78	41.02
Angle	75	77
Total Span	81.56	82.04



Comments
Twist = 0.190

QC15 Inspection	P 10.06.07
Date	

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	<i>[Signature]</i>

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Item	Qty -141	Part Number	Description
1	X	D350-748-141	CROSSTUBE ASSEMBLY (AS 350/355 HI FWD)
2	1	D6017-115	CROSSTUBE
3	2	D3502-1	SUPPORT
4	2	D2856-400-710	ABRASION STRIP
5	1	AELS-1032-225	INSERT
6	1	NAS1149D0363J	WASHER (OR AN960JD10)
7	2	MS21920-20	CLAMP (PER DART SPEC. M-MS21920-20)
8	1	MS27039-1-10	SCREW

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6017-115
FINISHED LENGTH = 110.270±0.06
- 2) FINISH: MAGNETIC PARTICLE INSPECT PER DART QSI 038 4.2
CADMIUM PLATE PER AMS-QQ-P-416B, CLASS 1, TYPE II
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D350-748-141" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 30.45 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE, EXCEPT FOR Ø0.297 HOLE.
- 9) BLEND OUT ALL EDGES FROM MACHINING LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
NOTE: ALL HOLES ARE DRILLED AFTER BENDING
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 7 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) HEAT TREAT TO MIN. 180 KSI PER MIL-T-6736 OR AMS 2759-1C AFTER TURNING.
- 12) INSTALL D2856-400-710 ABRASION STRIPS WITH A GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D3502-1 SUPPORT, PER QSI 035.
- 13) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE. WHEN DRILLING HOLES EXTREME CARE MUST BE TAKEN AND CAREFUL DEBURRING PERFORMED TO ENSURE A CLEAN HOLE WITH NO CRACKING/CHIPPING/GROOVES.
- 14) TORQUE CLAMPS 60 TO 80 IN.-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *59149*
PS10-5-27

RELEASED
2009-10-29
imp

REV. E	REVISE GENERAL NOTES: UPDATE TO CURRENT ADD STANDARDS; RELOCATED FLAG #6 PER PAR 08-046 (ZN A6-3); TOLERANCES (ZN C6-3, D1-3)	RF	09.09.30
D	MAG. PARTICLE AND CAD PLATE AS MFD.	CP	06.10.31
C	ADD CAD PLATING	CP	06.08.14
B	ADD D6017-115 & PRIME AND PAINT	CP	06.06.30
A	NEW ISSUE	CP	06.03.31
REV. I	DESCRIPTION	BY	DATE
DESIGN I	<i>RF</i>		
DRAWN I	<i>RF</i>		
CHECKED	<i>RF</i>		
MFG. APPR.	<i>RF</i>		
APPROVED	<i>RF</i>		
DE APPR. I	<i>RF</i>		
DATE	09.09.30		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D350-748-141	REV. E SHEET 1 OF 4
TITLE CROSSTUBE (AS 350/355 HI FWD)	SCALE NTS

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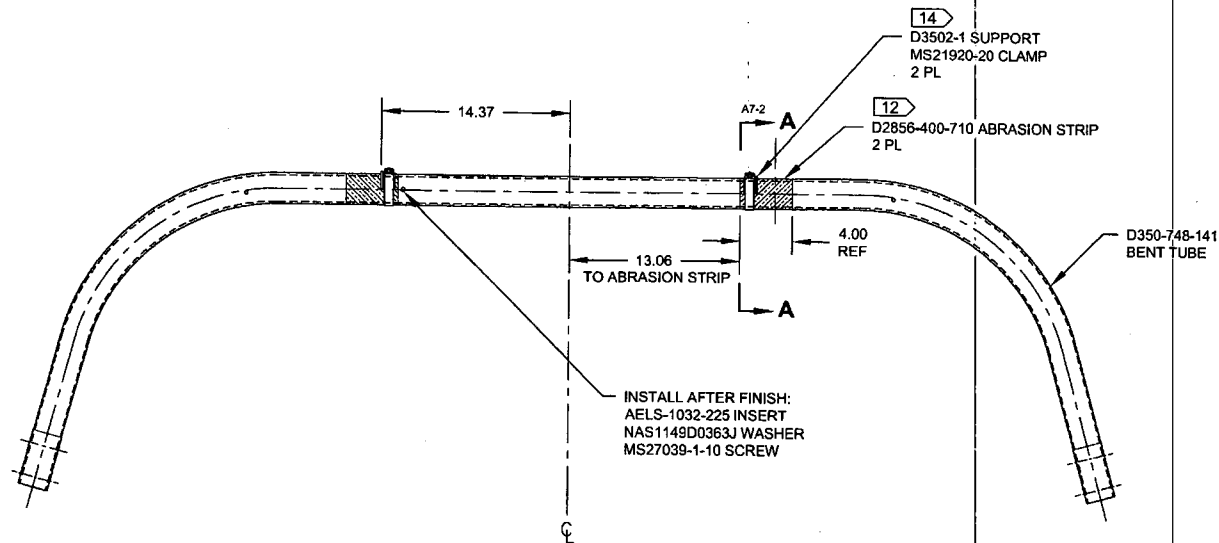
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

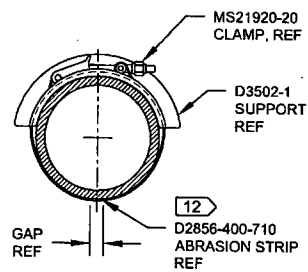
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



**D350-748-141
ASSEMBLY DETAIL**



**SECTION A-A D4-2
SCALE 4X**

w/o 39/69

RELEASED
2009-10-29

DESIGN	Q2	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	Q2	DRAWING NO.	REV.
MFG. APPR.	RF	D350-748-141	SHEET 2 OF 4
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	CROSSTUBE (AS 350/355 HI FWD) NTS	
DATE	09.09.30	COPYRIGHT © 2006 BY DART AEROSPACE LTD	
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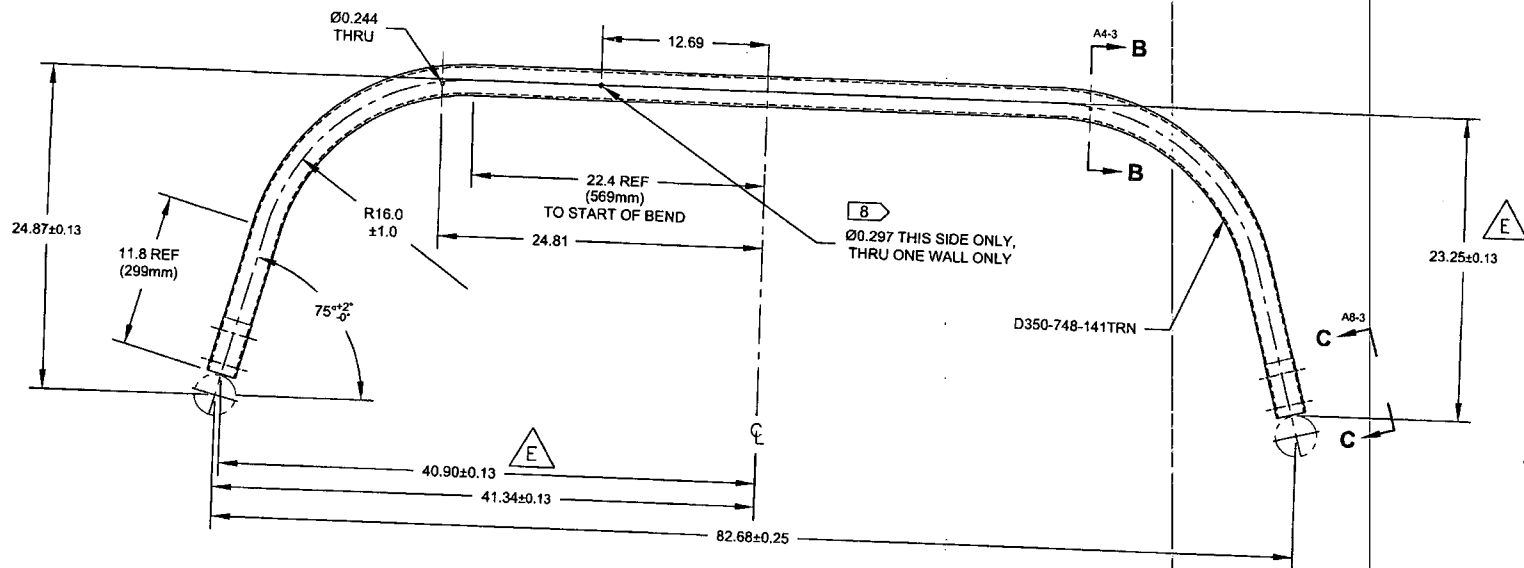
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

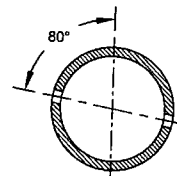
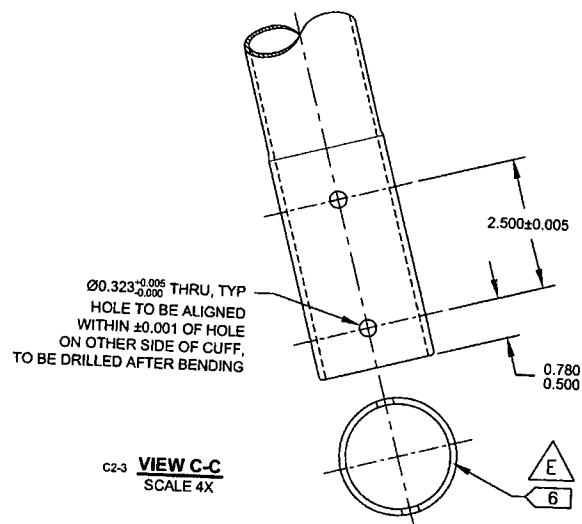
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D350-748-141
BENDING AND DRILLING DETAIL 10



W6 59169

RELEASED
2009-10-29
MD

DESIGN	90	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	90	DRAWING NO.	REV. E
MFG. APPR.	90	D350-748-141	SHEET 3 OF 4
APPROVED	90	TITLE	SCALE
DE APPR.	90	CROSSTUBE (AS 350/355 HI FWD)	NTS
DATE	09.09.30	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

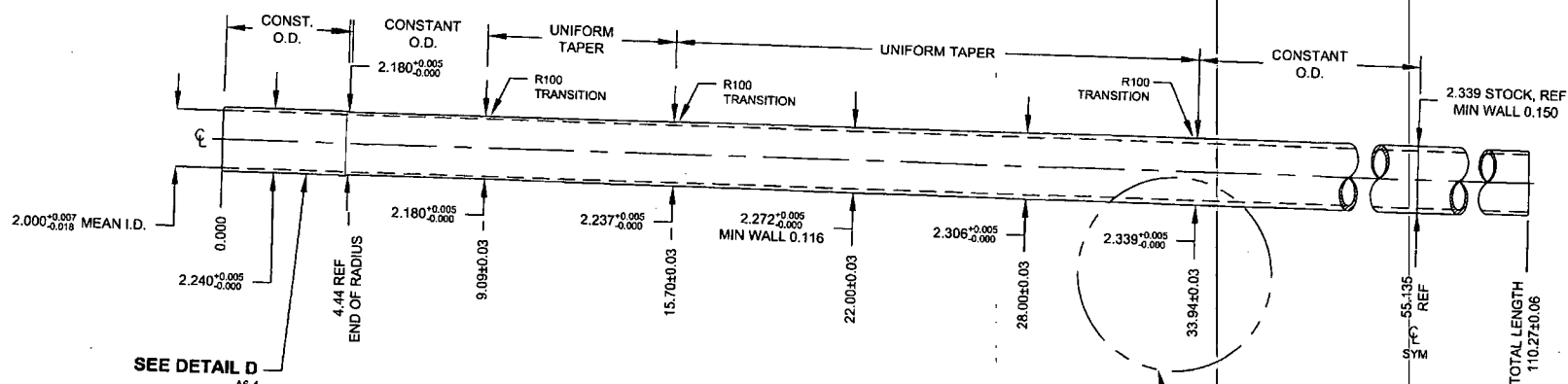
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

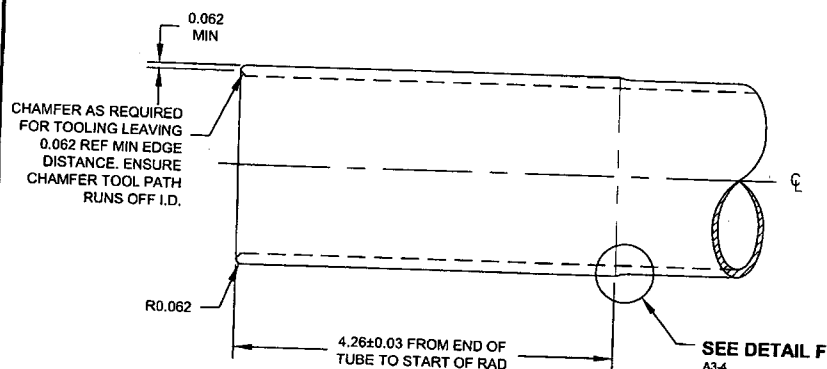
NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

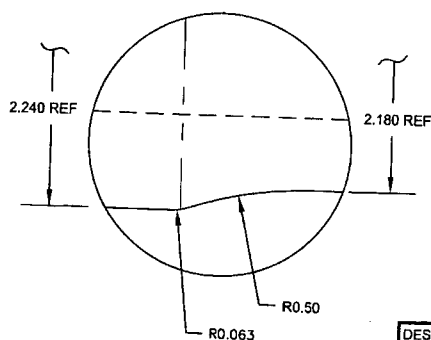


**D350-748-141TRN
TURNING DETAIL**

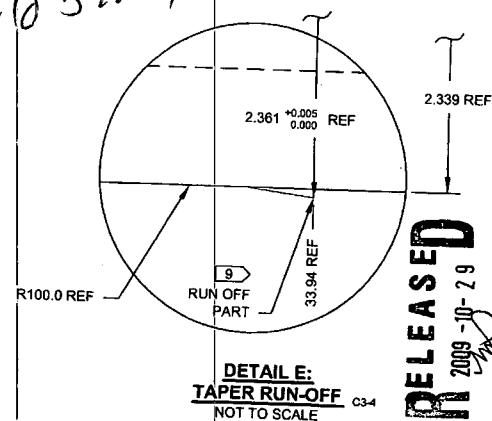
W6 59169



**DETAIL D:
CROSSTUBE CUFF** C7-4
SCALE 3X



**DETAIL E:
CUFF TRANSITION** A5-4
NOT TO SCALE



**DETAIL E:
TAPER RUN-OFF** C3-4
NOT TO SCALE

RELEASED
2009-10-29

DESIGN	01	DART AEROSPACE LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	02	DRAWING NO. D350-748-141
MFG. APPR.	03	REV. E SHEET 4 OF 4
APPROVED	04	TITLE CROSSTUBE (AS 350/355 HI FWD)
DE APPR.	05	SCALE NTS
DATE	09.09.30	COPYRIGHT © 2006 BY DART AEROSPACE LTD

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**CERTIFICATE OF
CONFORMANCE**

**CADORATH PLATING CO. LTD.
2150 LOGAN AVENUE
WINNIPEG, MANITOBA R2J-0J1**

DATE: Jun-24-2010

CONSIGNEE TO: Dart Aerospace Ltd.
1270 Aberdeen St
Hawksbury, ON K6A 1K7

W/O #: 96131

INVOICE #: 50108

**CONTRACT OR
PURCHASE ORDER #**

PO12026

DESCRIPTION: SKID

QTY 1

P/N # d350-748-101

S/N # b59169

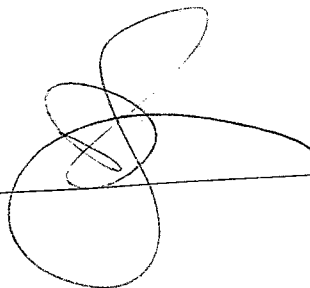
**CADMIUM PLATED IAW AMS-QQ-P-416B, TYPE 2 YELLOW, CLASS
1. BAKE HEAT CHART #10-634 & #10-649.**

10 07 05

**CERTIFICATE: I certify that the items indicated here on have
been inspected and tested and conform to all specifications
and requirements detailed on the contract or purchase order.**

Approved Inspector:

**CF
2**



5.0 PARTS LIST

Qty -101	Qty -201	Part Number	Description
X		D350-748-101	CROSSTUBE INSTALLATION, AS 350/355 HIGH FWD
	X	D350-748-201	CROSSTUBE INSTALLATION, AS 350/355 HIGH AFT
1		D350-748-141	CROSSTUBE ASSEMBLY, AS 350/355 HIGH FWD
	1	D350-748-241	CROSSTUBE ASSEMBLY, AS 350/355 HIGH AFT
*2	*2	D3502-1	SUPPORT
*2	*2	D2856-400-710	ABRASION STRIP
*1	*1	AELS-1032-225	INSERT
*2	*2	MS21920-20	CLAMP
*1	*1	MS27039-1-10	SCREW
*1	*1	AN960JD10	WASHER
4	4	D3500-1	SADDLE
16	16	D3501-1	BUSHING
16	16	AN4-6A	BOLT
8	8	AN4-41A	BOLT
4	4	AN5-32A	BOLT
32	32	AN960JD416	WASHER
8	8	AN960JD516	WASHER
24	24	MS21042L4	NUT (OR MS21042-4)
4	4	MS21042L5	NUT (OR MS21042-5)

* REFERENCE ONLY. PARTS ARE INCLUDED IN D350-748-141/241 ASSEMBLIES ABOVE

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:			WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 59169

Thursday, May 27, 2010 12:35:34 PM

Page 1

Item ID: D350-748-101

Accept

Setup Start

Revision ID:

Stop

Item Name: Crosstube Installation, High Fwd

Start Date: 5/27/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 6/11/2010 Req'd Qty: 1.00

Customer:

Reference:

Run Start

Approvals: Process Plan: 10-527 Date: 10-5-27 Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D350-748-141

Rev E

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPPD350-748-101 CHG001

CZ 10/17/12

110

0.00



BENDING MACHINE - CROSSTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Bend tube as per Dwg D350-748-141 using CNC bender program D350F and Folio FT _____

DP

10-5-31

120

0.00



QC15- Crosstube Dimensional Check

QC

Memo

0.00

Quality Control

CP 10-06-07